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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,807	07/28/2006	Yukio Miyata	JFE-06-1181	5332

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EXAMINER	
SHEVIN, MARK L	

ART UNIT	PAPER NUMBER
1793	

NOTIFICATION DATE	DELIVERY MODE
05/21/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pto.phil@dlapiper.com

Office Action Summary	Application No.	Applicant(s)	
	10/587,807	MIYATA ET AL.	
	Examiner	Art Unit	
	MARK L. SHEVIN	1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 April 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-5,7-10,12-15 and 17-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-5,7-10,12-15 and 17-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Acknowledgement of RCE

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 28th, 2010 has been entered.

Status of Claims

2. Claims 2-5, 7-10, 12-15, and 17-20, filed April 16th, 2010 are pending. Claims 2 and 4 are amended and claims 1, 6, 11, and 16 are cancelled.

Status of Previous Rejections

3. The previous rejection of claim 16 under 35 U.S.C. 112 (second paragraph) in the Office action dated November 25th, 2009 has been withdrawn in view of the cancellation of claim 16.

4. The previous rejections of claims 2-5, 7-10, 12-15, and 17-20 under 35 U.S.C. 103(a) in the Office action dated November 25th, 2009 have been maintained.

5. The previous rejection of claims 2-5, 7-10, 12-15, and 17-20 under the doctrine of non-statutory obviousness-type double patenting in the Office action dated November 25th, 2009 have been maintained.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2 and 4 recite the limitation "...in the weld heat affected zone" in the last lines of both claims. There is insufficient antecedent basis for this limitation in the claim. There is no heat affected zone in the products of claims 2 and 4 as there is no weld recited or required in these products, they are simply pipes, not welded structures.

Claim Rejections - 35 USC § 103

6. **Claims 2-5, 7-10, 12-15 and 17-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kimura** (US 5,985,209). The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Kimura:

Kimura discloses (col. 2, lines 35-55) a martensitic stainless steel for a line pipe with the composition as shown in the comparative table above. Steel of Kimura's disclosed composition may be formed into seamless pipe or welded pipe such as electric resistance welded steel pipe, UOE steel pipe, or spiral steel pipe (col. 5, lines 35-41). Line pipe implicitly has a heat-affected zone formed during welding. Lastly, the steel pipes of Kimura's invention are designed to undergo girth welding, to implicitly join

pipes together into a welded structure for transferring oil and natural gas (col. 8, lines 32-44).

Element	Instant	Kimura	Overlap
C	0 – 0.01	0 – 0.02	0 – 0.01
N	0 – 0.01	0 – 0.07	0 – 0.01
Cr	10 - 14	10 – 14	10 - 14
Ni	4 - 7	0.2 – 7.0	4 – 7
Si	0.05 – 1.0	0 – 0.5	0.05 – 0.5
Mn	0.1 – 2.0	0.2 – 3.0	0.2 – 2.0
P	0 – 0.3	0 – 0.05	0 – 0.05
S	0 – 0.01	0 – 0.005	0 – 0.005
Al	0.001 – 0.10	0 – 0.1	0.001 – 0.1
Cu	0 – 4	0 – 2.0	0 – 2.0
Co	0 – 4	n/a	n/a
Mo	0 – 4	0.2 – 5.0	0.2 – 4
W	0 – 4	n/a	n/a
Ti	0 – 0.15	0 – 0.15	0 – 0.15
Nb	0 – 0.10	0 - 0.25	0 – 0.10
V	0 – 0.10	0 – 0.20	0 – 0.10
Zr	0 – 0.10	0 – 0.15	0 – 0.10
Hf	0 – 0.20	n/a	n/a
Ta	0 – 0.20	0 – 0.15	0 – 0.15
Ca	0 – 0.010	0 – 0.006	0 – 0.006
Mg	0 – 0.010	n/a	n/a
REM	0 – 0.010	n/a	n/a
B	0 – 0.01	n/a	n/a
Fe	Balance	Balance	Balance

Regarding claims 2-5, it would have been obvious to one of ordinary skill in stainless steel pipe, at the time of the invention, to select any portion of the claimed ranges, including the claimed ranges, from the overlapping ranges disclosed in Kimura because Kimura finds that the prior art composition in the entire disclosed ranges has a

suitable utility and the normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages."); *In re Hoeschele*, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969). From MPEP § 2144.05: In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). In addition, "[A] prior art reference that discloses a range encompassing a somewhat narrower claimed range is sufficient to establish a prima facie case of obviousness." *In re Peterson*, 315 F.3d 1325, 1330, 65 USPQ2d 1379, 1382-83 (Fed. Cir. 2003). Also see, In re Geisler 43 USPQ 2d 1365 (Fed. Cir. 1997) and In re Malagari, 182 USPQ 549, 554 (CCPA 1974).

With respect to the pipe being "seamless", Kimura taught that his martensitic stainless steel pipes may be seamless (col. 3, lines 10-15 and col. 5, lines 35-41).

With respect to the formula “wherein the content Csol defined…on a mass basis”, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, In re Cooper and Foley 1943 C.D. 357,553 O.G. 177., 57 USPQ 1 17, Taklatwalla v. Marburg, 620 O.G. 685, 1949 C.D. 77, and In re Pilling, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In absence of evidence to the contrary, the selection of the proportions of elements would appear to require no more than routine investigation by those ordinary skilled in the art. In re Austin, et al. 149 USPQ 685,688. It would have been obvious to one of ordinary skill in the art to

select alloy compositions fulfilling the claimed compositional relationships from the alloy compositional ranges disclosed by Kimura.

With respect to the amendments to claims 2 and 4 reciting "...and martensite in the weld heat affected zone of the steel pipe is substantially free of Cr depleted zones...", one of ordinary skill would reasonably expect the steel pipes of Kimura to possess the claimed properties regarding Cr in the HAZ as Kimura discloses steels of substantially similar compositions. Furthermore, Kimura also seeks to retain Cr in the matrix and avoid Cr-carbide formation (col. 4, lines 52-61), and thus maintain corrosion resistance.

Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established. Furthermore, "when the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not" and "the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product. Whether the rejection is based on 'inherency' under 35 U.S.C. 102, on '*prima facie* obviousness' under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same..." (MPEP 2112, section V, para 1).

Regarding claim 7-10, it would have been obvious to one of ordinary skill in the stainless steel pipe, at the time of the invention, to form a seamless martensitic stainless steel line pipe with the claimed alloying elements in the claimed ranges as

Kimura discloses a martensitic stainless steel for line pipe (Abstract, col. 2, lines 5-10, and claim 1) with overlapping ranges of the claimed alloying elements as discussed in the rejections of claims 2-5, *supra*.

Regarding claims 12-15 and 17-20, it would have been obvious to one of ordinary skill in stainless steel pipe, at the time of the invention, to form a welded structure or a welded structure further welded to a member as the steel pipes of Kimura's invention are designed to undergo girth welding, to implicitly join pipes together into a welded structure for transferring oil and natural gas (col. 8, lines 32-44) and one of ordinary skill would have welded pipes together to form such a pipeline for transporting oil and/or natural gas from Kimura. Line pipes are a welded structure and they are implicitly welded together by girth welding to form pipeline for oil/natural gas transport.

7. **Claims 2-5, 7-10, 12-15 and 17-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **JP '604** (JP 2002-105604 - machine translation).

JP '604:

JP '604 discloses a martensitic stainless steel pipe for linepipe having excellent corrosion resistance and weldability (Abstract). The steel pipes of JP '604 may be in the form in seamless steel tubes, welded steel pipes, electroseamed pipes, UOE steel pipe, or spiral weld pipes (para 0024).

JP '604 discloses (para 0011-0022) overlapping composition ranges as shown in the comparative table below:

Element	Instant	JP '604	Overlap
C	0 – 0.01	0 – 0.02	0 – 0.01
N	0 – 0.01	0 – 0.07	0 – 0.01
Cr	10 - 14	10 - 14	10 – 14
Ni	4 - 7	0.2 – 7.0	4 – 7
Si	0.05 – 1.0	0 – 1.0	0.05 – 1.0
Mn	0.1 – 2.0	0.2 – 3.0	0.2 – 2.0
P	0 – 0.3	0 – 0.05	0 – 0.05
S	0 – 0.01	0 – 0.005	0 – 0.005
Al	0.001 – 0.10	0 – 0.1	0.001 – 0.1
Cu	0 – 4	n/a (0)	n/a (0)
Co	0 – 4	n/a (0)	n/a (0)
Mo	0 – 4	0.2 – 3.0	0.2 – 3.0
W	0 – 4	n/a (0)	n/a (0)
Ti	0 – 0.15	0 – 0.15	0 – 0.15
Nb	0 – 0.10	0 – 0.2	0 – 0.10
V	0 – 0.10	0 – 0.2	0 – 0.10
Zr	0 – 0.10	0 – 0.15	0 – 0.10
Hf	0 – 0.20	n/a (0)	n/a (0)
Ta	0 – 0.20	0 – 0.15	0 – 0.15
Ca	0 – 0.010	0 – 0.006	0 – 0.006
Mg	0 – 0.010	n/a (0)	n/a (0)
REM	0 – 0.010	n/a (0)	n/a (0)
B	0 – 0.01	n/a (0)	n/a (0)
Fe	Balance	Balance	Balance

Regarding claims 2-5, it would have been obvious to one of ordinary skill in stainless steel pipe, at the time of the invention, to select any portion of the claimed ranges, including the claimed ranges, from the overlapping ranges disclosed in JP '604 for the same reasons as stated in the rejections over Kimura above, see MPEP § 2144.05.

With respect to the pipe being "seamless", JP '604 discloses that the steel pipes may be manufactured in the form of seamless pipe (para 0024).

With respect to the formula "wherein the content Csol defined…on a mass basis", , thus limitation is addressed in the same way as stated in the rejections above over Kimura.

With respect to the amendments to claims 2 and 4 reciting "…and martensite in the weld heat affected zone of the steel pipe is substantially free of Cr depleted zones…", one of ordinary skill would reasonably expect the steel pipes of JP '604 to possess the claimed properties regarding Cr in the HAZ as JP '604 discloses steels of substantially similar compositions and furthermore produces the final steel pipes by a substantially similar process (para 0026 and 0027) as compared to that of the instant invention (instant specification para 0064-0065) including heating the tube after forming to a temperature above the Ac3 point, cooling at faster than air cooling, and then tempering below Ac1.

Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established (see MPEP 2112, section V, para 1).

Regarding claim 7-10, it would have been obvious to one of ordinary skill in the stainless steel pipe, at the time of the invention, to form a seamless martensitic stainless steel line pipe with the claimed alloying elements in the claimed ranges as JP '604 discloses a martensitic stainless steel for line pipe with overlapping ranges of the claimed alloying elements as discussed in the rejections of claims 2-5, *supra*.

Regarding claims 12-20, it would have been obvious to one of ordinary skill in stainless steel pipe, at the time of the invention, to form a welded structure or a welded structure further welded to a member as the steel pipes of JP '604 are designed for use as line pipe, which is are designed to undergo girth (circumferential) welding, to implicitly join pipes together into a welded structure for transferring oil and natural gas (para 0001-0003 and 0031) and one of ordinary skill would have welded pipes together to form such a pipeline for transporting oil and/or natural gas from JP '604. Line pipes are a welded structure and they are implicitly welded together by girth welding to form pipeline for oil/natural gas transport.

8. **Claims 2, 3, 7, 8, 12, 13, 17, and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ueda** (EP 1,026,273 A1).

Ueda:

Ueda discloses a high-corrosion-resistant martensitic stainless steel for use in line-pipes for transporting oil and natural gas (para 0001) and may be used as material for seamless pipes, resistance welded pipes, laser welded pipes, and submerged arc welded pipes (para 0002). Ueda discloses martensitic stainless steel with overlapping composition ranges as shown in the comparative table below:

Element	Instant	Ueda	Overlap
C	0 – 0.01	0 – 0.04	0 – 0.01
N	0 – 0.01	0 – 0.05	0 – 0.01
Cr	10 - 14	7 – 15	10 – 14
Ni	4 - 7	0.7 – 8.0	4 – 7
Si	0.05 – 1.0	0.01 – 1.0	0.05 – 1.0
Mn	0.1 – 2.0	0.1 – 1.5	0.1 – 1.5
P	0 – 0.3	n/a (0 – impurity)	n/a (0 – impurity)
S	0 – 0.01	0 – 0.01	0 – 0.01
Al	0.001 – 0.10	0.001 – 0.2	0.001 – 0.10
Cu	0 – 4	0 – 2	0 – 2
Co	0 – 4	n/a (0 - impurity)	n/a (0 - impurity)
Mo	0 – 4	0.2 – 3.0	0.2 – 3.0
W	0 – 4	0.2 – 3.0	0.2 – 3.0
Ti	0 – 0.15	0.005 – 0.10	0.005 – 0.10
Nb	0 – 0.10	0.005 - 0.10	0.005 – 0.10
V	0 – 0.10	n/a (0 - impurity)	n/a (0 - impurity)
Zr	0 – 0.10	0.005 – 0.10	0.005 – 0.10
Hf	0 – 0.20	n/a (0 - impurity)	n/a (0 - impurity)
Ta	0 – 0.20	n/a (0 - impurity)	n/a (0 - impurity)
Ca	0 – 0.010	0.001 – 0.05	0.001 – 0.010
Mg	0 – 0.010	0.001 – 0.05	0.001 – 0.010
REM	0 – 0.010	0.001 – 0.05	0.001 – 0.010
B	0 – 0.01	n/a (0 - impurity)	n/a (0 - impurity)
Fe	Balance	Balance	Balance

Regarding claims 2 and 3, it would have been obvious to one of ordinary skill in stainless steel pipe, at the time of the invention, to select any portion of the claimed ranges, including the claimed ranges, from the overlapping ranges disclosed in Ueda for the same reasons as stated in the rejections over Kimura above, see MPEP § 2144.05.

With respect to the pipe being "seamless", Ueda discloses that the steel pipes may be manufactured in the form of seamless pipe (para 0002).

With respect to the formula "wherein the content Csol defined…on a mass basis", , thus limitation is addressed in the same way as stated in the rejections above over Kimura.

With respect to the amendments to claims 2 and 4 reciting "…and martensite in the weld heat affected zone of the steel pipe is substantially free of Cr depleted zones…", one of ordinary skill would reasonably expect the steel pipes of Ueda to possess the claimed properties regarding Cr in the HAZ as Ueda discloses steels of substantially similar compositions and furthermore produces the final steel pipes by a substantially similar process (para 0040) as compared to that of the instant invention (instant specification para 0064-0065) including heating the tube after forming to a temperature above the Ac3 point, cooling at faster than air cooling (water quenching), and then tempering below Ac1 (600-670 C).

Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established (see MPEP 2112, section V, para 1).

Regarding claims 7, 8, 12, 13, 17, and 18, it would have been obvious to one of ordinary skill in stainless steel pipe, at the time of the invention, to form a welded structure or a welded structure further welded to a member as the steel pipes of Ueda are designed for use as line pipe, which is are designed to undergo girth (circumferential) welding, to implicitly join pipes together into a welded structure for transferring oil and natural gas (para 0001-0002 and 0064) and one of ordinary skill

would have welded pipes together to form such a pipeline for transporting oil and/or natural gas from Ueda. Line pipes are a welded structure and they are implicitly welded together by girth welding to form pipeline for oil/natural gas transport.

Double Patenting

9. **Claims 2-5, 7-10, 12-15 and 17-20** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 and 12-16 filed September 16th, 2009 of copending Application No. 12/416,996 (US '996).

Although the conflicting claims are not identical, they are not patentably distinct from each other for the following reasons:

US '996:

US '996 recites (claims 1-4) a corrosion-resistant martensitic stainless steel pipe for oil country tubular goods (martensitic because it is majority martensite per claim 2). Claim 12 further recites a method of making such a pipe and that the pipe is seamless. Claims 1-4 and 12-16 recite the content of alloying additions as shown in the comparative table below:

Element	Instant	US '996	Overlap
C	0 – 0.01	0 – 0.05	0 – 0.01
N	0 – 0.01	0.01 – 0.15	0.01
Cr	10 - 14	14 - 18	14
Ni	4 - 7	5 - 8	5 – 7
Si	0.05 – 1.0	0 – 0.50	0.05 – 0.50
Mn	0.1 – 2.0	0.20 – 1.80	0.20 – 1.80
P	0 – 0.3	0 – 0.03	0 – 0.03
S	0 – 0.01	0 – 0.005	0 – 0.005

Al	0.001 – 0.10	0 – 0.05	0.001 – 0.05
Cu	0 – 4	0.5 – 3.5	0.5 – 3.5
Co	0 – 4	n/a	n/a
Mo	0 – 4	1.5 – 3.5	1.5 – 3.5
W	0 – 4	0 - 3	0 – 3
Ti	0 – 0.15	0 – 0.30	0 – 0.15
Nb	0 – 0.10	0 – 0.20	0 – 0.10
V	0 – 0.10	0.03 – 0.20	0.03 – 0.10
Zr	0 – 0.10	0 – 0.20	0 – 0.10
Hf	0 – 0.20	n/a	n/a
Ta	0 – 0.20	n/a	n/a
Ca	0 – 0.010	0.0005 – 0.01	0.0005 – 0.01
Mg	0 – 0.010	n/a	n/a
REM	0 – 0.010	n/a	n/a
B	0 – 0.01	0 – 0.01	0 – 0.01
Fe	Balance	Balance	Balance

Regarding claims 2-5, these claims are rejected for the same reasons as stated in the rejection of claim 2-5 over Kimura, *supra*, see MPEP 2144.05. With respect to the amendments to claims 2 and 4 reciting "...and martensite in the weld heat affected zone of the steel pipe is substantially free of Cr depleted zones...", one of ordinary skill would reasonably expect the steel pipes of US '996 to possess the claimed properties regarding Cr in the HAZ as US '996 is a steel of substantially similar composition.

Regarding claims 7-10, it would have been obvious to one of ordinary skill in the stainless steel pipe, at the time of the invention, to form a seamless martensitic stainless steel line pipe with the claimed alloying elements in the claimed ranges as US '996 discloses a martensitic stainless steel seamless pipe for oil country tubular goods which suggests the use of such a pipe to transport oil, hence motivation for producing a line pipe.

Regarding claims 12-20, it would have been obvious to one of ordinary skill in stainless steel pipe, at the time of the invention, to form a welded structure or a welded structure further welded to a member as the steel pipes of US '996 are implicitly designed to be welded into line pipe to thus transport oil.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

10. **Claims 2-5, 7-10, and 12-20** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-11 of copending Application No. 12/665,097 (US '097).

US '097:

US '097 recites (claims 1-3) a martensitic stainless steel seamless pipe for oil country tubular goods with a composition as shown in the comparative table below:

Element	Instant	US '097	Overlap
C	0 – 0.01	0 – 0.01	0 – 0.01
N	0 – 0.01	0 – 0.05	0 – 0.01
Cr	10 - 14	10 – 14	10 – 14
Ni	4 - 7	0.1 – 4.0	4.0
Si	0.05 – 1.0	0 – 1.0	0.05 – 1.0
Mn	0.1 – 2.0	0.1 – 2.0	0.1 – 2.0
P	0 – 0.3	0 – 0.020	0 – 0.02
S	0 – 0.01	0 – impurity	0 – impurity
Al	0.001 – 0.10	0 – 0.10	0.001 – 0.10
Cu	0 – 4	0 – 2.0	0 – 2.0
Co	0 – 4	n/a (0)	n/a (0)
Mo	0 – 4	0 – 2.0	0 – 2.0
W	0 – 4	n/a (0)	n/a (0)
Ti	0 – 0.15	0 – 0.10	0 – 0.10
Nb	0 – 0.10	0 – 0.10	0 – 0.10
V	0 – 0.10	0 – 0.10	0 – 0.10

Zr	0 – 0.10	n/a (0)	n/a (0)
Hf	0 – 0.20	n/a (0)	n/a (0)
Ta	0 – 0.20	n/a (0)	n/a (0)
Ca	0 – 0.010	n/a (0)	n/a (0)
Mg	0 – 0.010	n/a (0)	n/a (0)
REM	0 – 0.010	n/a (0)	n/a (0)
B	0 – 0.01	n/a (0)	n/a (0)
Fe	Balance	Balance	Balance

Furthermore, US '097 recites (claims 4-11) a substantially similar production method as compared to that of the instant invention (paras 0064-0065 of the instant specification including reheated above Ac3, cooling at a rate greater than air cooling, and tempering below Ac1.

Regarding claims 2-5, these claims are rejected for the same reasons as stated in the rejection of claim 2-5 over Kimura, *supra*, see MPEP 2144.05. With respect to the amendments to claims 2 and 4 reciting "...and martensite in the weld heat affected zone of the steel pipe is substantially free of Cr depleted zones...", theses amendments are rejected are obvious for the same reasons as stated for the ODP rejections over US '996 above (see MPEP 2112, section V, para 1).

Regarding claims 7-10, it would have been obvious to one of ordinary skill in the stainless steel pipe, at the time of the invention, to form a seamless martensitic stainless steel line pipe with the claimed alloying elements in the claimed ranges as US '097 discloses a martensitic stainless steel seamless pipe for oil country tubular goods which suggests the use of such a pipe to transport oil, hence motivation for producing a line pipe.

Regarding claims 12-20, it would have been obvious to one of ordinary skill in stainless steel pipe, at the time of the invention, to form a welded structure or a welded structure further welded to a member as the steel pipes of US '097 are implicitly designed to be welded into line pipe to thus transport oil.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Applicant's Arguments:

11. Applicant's arguments filed April 16th, 2010 have been fully considered but they are not persuasive.

Applicants assert (p. 6, para 6 to p. p. 8, para 1) that Kimura does not disclose that the martensite in the weld heat affected zone of the steel pipe is substantially free of Cr depleted zones and Kimura fails to disclose, teach, or suggest the combination of factors that results in the claimed property. In response, with respect to the amendments to claims 2 and 4 reciting "...and martensite in the weld heat affected zone of the steel pipe is substantially free of Cr depleted zones...", one of ordinary skill would reasonably expect the steel pipes of Kimura to possess the claimed properties regarding Cr in the HAZ as Kimura discloses steels of substantially similar compositions. Furthermore, Kimura also seeks to retain Cr in the matrix and avoid Cr-carbide formation (col. 4, lines 52-61), and thus maintain corrosion resistance. Furthermore, there is no heat affected zone in the pipes of independent claims 2 and 4 as there is no weld (implicit in seamless pipe).

Lastly, Applicants instant specification discusses the importance of the composition, particularly the C and N contents (para 0017, 0018, and 0021) in preventing Cr depletion in the HAZ, and there is no evidence presented that the processing method is critical to achieve the recited limitations regarding the Cr in the HAZ. Furthermore, as the instant claims are drawn to products, not processes, and thus the assertions regarding the processing steps need to be backed by quantitative evidence commensurate with the scope of the instant claims (MPEP 716.02(d))

Applicants assert (p. 9, para 2) that claims 2 and 4 represent an unexpected effect of suppressing intergranular stress corrosion cracking (IGSCC) and point out two comparative diagrams. In response, this is only an allegation of unexpected results supported only by attorney argument (MPEP 716.01(c) II) and must be supported by actual proof (MPEP 716.01(c) I). While the presence of a property not possessed by the prior art is evidence of nonobviousness, the submission of evidence (in this case – only argument) that a new product possesses unexpected properties does not necessarily require a conclusion that the claimed invention is nonobvious. (MPEP 716.02(a) III); and most importantly the showing of unexpected results must be reviewed to see if the results occur over the entire claimed range (MPEP 716.02(d)), which Applicants have failed to show. Moreover, the leftmost of the two Venn diagrams on page 9 is labeled "prior art" but there is no evidence to suggest that this diagram applies to Kimura (or any of the other cited prior art for that matter).

Conclusion

-- Claims 2-5, 7-10, 12-15, and 17-20 are rejected
-- No claims are allowed

The rejections above rely on the references for all the teachings expressed in the texts of the references and/or one of ordinary skill in the metallurgical art would have reasonably understood or implied from the texts of the references. To emphasize certain aspects of the prior art, only specific portions of the texts have been pointed out. Each reference as a whole should be reviewed in responding to the rejection, since other sections of the same reference and/or various combinations of the cited references may be relied on in future rejections in view of amendments.

All recited limitations in the instant claims have been met by the rejections as set forth above. Applicant is reminded that when amendment and/or revision is required, applicant should therefore specifically point out the support for any amendments made to the disclosure. See 37 C.F.R. § 1.121; 37 C.F.R. Part §41.37 (c)(1)(v); MPEP §714.02; and MPEP §2411.01(B).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark L. Shevin whose telephone number is (571) 270-3588 and fax number is (571) 270-4588. The examiner can normally be reached on Monday - Friday, 8:30 AM - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy M. King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/Mark L. Shevin/
Examiner, Art Unit 1793
May 14th, 2010

/George Wyszomierski/
Primary Examiner
Art Unit 1793